#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018643 Address: 333 Burma Road **Date Inspected:** 10-Oct-2010

City: Oakland, CA 94607

**Project Name:** SAS Superstructure OSM Arrival Time: 1500 **OSM Departure Time:** 300 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** ShangHai, China

**CWI Name:** Chen Xi **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

### **Summary of Items Observed:**

Summary of Items Observed: On this date Caltrans OSM Quality Assurance(QA) Inspector, DJ Shin was present during the times noted above for observations relative to the work being performed.

#### Bay 1

Heat straightening of PCMK, 20TR-046 under approved Heat Straightening procedure, HSR (B)-363. The in process temperature was at the time of this observation witnessed at less than 600°C. The ZPMC QC was identified as Zhu Lin. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 applications. The distortion that was previously measured and recorded on the HSR was Maximum 80mm.

#### Bay 2

This QA Inspector observed the following work in progress for Bay 2.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zhu Lin.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Traveler Rail PCMK: E5-SB1-041-026~031

Welder: 045276 WPS-B-T-2132-3

(Continued Page 2 of 5)

PCMK: E5-SB10-001-026~031

Welder: 203871 WPS-B-T-2132-3

PCMK: E5-SB1-016-001~012

Welder: 045203 WPS-B-T-2133

PCMK: E5-SB1-003-020~021

Welder: 045240 WPS-B-T-2132-3

Bay 3

This QA Inspector observed the following work in progress for Bay 3.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zhu Lin.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Floor Beam PCMK: FB3266-001-074,075 Welder: 045271,217805 WPS-B-T-2132-3

Components: Bulk Head PCMK: SA3325-001-054

Welder: 206623

WPS-B-T-2232-TC-U4b-F

PCMK: SA3324-001-016

Welder: 055564

WPS-B-T-2232-TC-U4b-F

## Bay 4

This QA Inspector observed the following work in progress for Bay 4.

ZPMC was using the Submerged Arc Welding (SAW) process.

ZPMC QC is identified as Li Zhi Jiang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Floor Beam PCMK: SA3361-001-001

Welder: 050502

WPS-B-T-2221-B-L2C-S-2

(Continued Page 3 of 5)

Components: Bulk Head PCMK: SA3362-001-001

Welder: 207288

WPS-B-T-2221-B-L2C-S-2

Bay 6

This QA Inspector observed the following work in progress for Bay 6.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zheng Zhi Wei.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components: Cross Beam PCMK: CB3003E-019-002

Welder: 062447

WPS-B-T-2231-B-U2-F

PCMK: CB3002A-018-027

Welder: 053742

WPS-B-T-2232-B-U5-F

Components: Floor Beam PCMK: FB3168-002-039

Welder: 053609

WPS-B-T-2232-B-U3-F

PCMK: FB3168-002-044

Welder: 217185

WPS-B-T-2232-B-U3-F

This QA Inspector observed the following work in progress for Bay 6.

ZPMC was using the Submerged Arc Welding (SAW) process.

ZPMC QC is identified as Zheng Zhi Wei.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

PCMK: CB3003E-019-001

Welder: 215960

WPS-B-T-2221-B-L2C-S

Bay 7

This QA Inspector observed the following work in progress for Bay 7.

ZPMC was using the Shield Metal Arc Welding (SMAW) process.

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ZPMC QC is identified as Liu Chuan Gang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Cross Beam PCMK: X4253C-001-001

Welder: 053753 Report: B-CWR2021

WPS-345-SMAW-1G (1F)-Repair

PCMK: X4253B-001-001

Welder: 048659

Report: B-CWR2032

WPS-345-SMAW-1G (1F)-Repair

PCMK: X4253B-002-001

Welder: 053795 Report: B-CWR2033

WPS-345-SMAW-1G (1F)-Repair

PCMK: CB3003B-019-005

Welder: 215689

WPS-B-T-2231-B-U2-F

Components: Barrier rail PCMK: W2-SB1-022-57~62

Welder: 048625 WPS-B-T-2132-3

PCMK: W2-SB9-112,114

Welder: 051246 WPS-B-T-2132-3

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# **Summary of Conversations:**

No relevant conversations

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

| Inspected By: | Shin,DJ         | Quality Assurance Inspector |
|---------------|-----------------|-----------------------------|
| Reviewed By:  | Carreon, Albert | QA Reviewer                 |